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Under the (Re)		2004 W			PTO/SB/21 (09-04) Approved for use through 07/31/2005. OMB 0651-0031 Frademark Office; U.S. DEPARTMENT OF COMMERCE formation unless it displays a valid OMB control number.
A 110.			Application Number	10/750,56	
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. ~1	PAPORM		First Named Inventor	David W. I	Boggs
		Γ	Art Unit	1772	
(to be used for	all correspondence after initial	4	Examiner Name	Not Yet As	ssigned
Total Number of	f Pages in This Submission	,	Attorney Docket Number	er 111079-13	35918
		ENCL	OSURES (Check	all that apply	y)
Amendme Al	fter Final ffidavits/declaration(s)	Lice Per Pro Cr	rawing(s) censing-related Papers etition etition to Convert to a rovisional Application ower of Attorney, Revoca hange of Correspondence		After Allowance Communication to TC Appeal Communication to Board of Appeals and Interferences Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) Proprietary Information Status Letter Other Enclosure(s) (please Identify below):
Extension of Time Request Express Abandonment Request Information Disclosure Statement		Re	Request for Refund CD, Number of CD(s) Landscape Table on CD		below): Return Receipt Postcard
Documen Reply to N Incomplet	Missing Parts/ te Application eply to Missing Parts nder 37 CFR 1.52 or 1.53	Remarks			
	SIGNA	TURE OF	F APPLICANT, AT	ORNEY,	OR AGENT
Firm Name	Schwabe, Williamson & W	/yatt, P.C.			
Signature	Mu				
Printed name	Robert Watt				
Date	11/11/2004			Reg. No.	45890
	CI	ERTIFIC!	ATE OF TRANSMIS	SSION/MA	ILING
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Signature Multhu adamson					

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Heather L. Adamson

Typed or printed name

Date 11/11/2004

PTO/SB/17 (10-04v2)

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Effective 10/01/2004. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

Complete il Known				
Application Number	10/750,560			
Filing Date	12/31/2003			
First Named Inventor	David W. Boggs			
Examiner Name	Not Yet Assigned			
Art Únit	1772			
Attornov Docket No.	111079-135918			

Complete if Known

METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)				
Check Credit card Money Other None	3. ADDITIONAL FEES				
Deposit Account:	Large Entity Small Entity				
Deposit Account 500393	Fee Fee Code (\$) Fee Description	Fee Paid			
Number	1051 130 2051 65 Surcharge - late filing fee or oath				
Deposit Account Name Schwabe Williamson et al.	1052 50 2052 25 Surcharge - late provisional filing fee or cover sheet				
The Director is authorized to: (check all that apply)	1053 130 1053 130 Non-English specification	<u> </u>			
Charge fee(s) indicated below Credit any overpayments	1812 2,520 1812 2,520 For filing a request for ex parte reexamina	tion			
Charge any additional fee(s) or any underpayment of fee(s)	1804 920* 1804 920* Requesting publication of SIR prior to Examiner action				
Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.	1805 1,840* 1805 1,840* Requesting publication of SIR after Examiner action				
·	1251 110 2251 55 Extension for reply within first month				
FEE CALCULATION	1252 430 2252 215 Extension for reply within second month				
1. BASIC FILING FEE Large Entity Small Entity	1253 980 2253 490 Extension for reply within third month				
Fee Fee Fee Fee Fee Paid Code (\$) Code (\$)	1254 1,530 2254 765 Extension for reply within fourth month				
1001 790 2001 395 Utility filing fee	1255 2,080 2255 1,040 Extension for reply within fifth month				
1002 350 2002 175 Design filing fee	1401 340 -2401 170 Notice of Appeal	j			
1003 550 2003 275 Plant filing fee	1402 340 2402 170 Filing a brief in support of an appeal				
1004 790 2004 395 Reissue filing fee	1403 300 2403 150 Request for oral hearing				
1005 160 2005 80 Provisional filing fee	1451 1,510 1451 1,510 Petition to institute a public use proceeding	g			
SUBTOTAL (1) (\$) 0.00	1452 110 2452 55 Petition to revive - unavoidable				
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE	1453 1,370 2453 685 Petition to revive - unintentional				
Fee from	1301 1,370 2301 663 Utility issue lee (or reissue)				
Extra Claims below Fee Paid Total Claims -20** = X =	1502 490 2502 245 Design issue fee				
Independent 2**-	1503 660 2503 330 Plant issue fee				
Claims — 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3	1460 130 1460 130 Petitions to the Commissioner	ļi			
	1807 50 1807 50 Processing fee under 37 CFR 1.17(q)				
Large Entity Small Entity	1806 180 1806 180 Submission of Information Disclosure Str	nt			
Code (\$)	8021 40 8021 40 Recording each patent assignment per property (times number of properties)				
1202 18 2202 9 Claims in excess of 20 1201 88 2201 44 Independent claims in excess of 3	1809 790 2809 395 Filing a submission after final rejection (37 CFR 1.129(a))				
1203 300 2203 150 Multiple dependent claim, if not paid	1810 790 2810 395 For each additional invention to be				
1204 88 2204 44 ** Reissue independent claims over original patent	examined (37 CFR 1.129(b)) 1801 790 2801 395 Request for Continued Examination (RC	E)			
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802 900 1802 900 Request for expedited examination of a design application				
	Other fee (specify)				
**or number previously paid, if greater; For Reissues, see above	*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0	.00			

SUBMITTED BY (Complete (if applicable)) Registration No. Name (Print/Type) Robert Watt 45890 Telephone 503-222-9981 Uru Date 11/11/2004 Signature

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IN THE UNITED STATES RATENT AND TRADEMARK OFFICE

In re Application for:

David W. Boggs et al. 🛠

Application No.: 10/750,560

Filed: 12/31/2003

For: ELECTRONIC SUBSTRATE WITH

DIRECT INNER LAYER

COMPONENT

INTERCONNECTION

Examiner: Not Yet Assigned

Art Group: 1772

Confirmation No. 5692

CERTIFICATE OF TRANSMISSION/MAILING

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Typed or Printed: Heather L Adamson

inature (N) With Old (MA) WAY) Hate: 11/11/2004

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INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. § 1.97(g), the submission of this Information Disclosure Statement (IDS) is not to be construed as a representation that a search has been made, and, pursuant to 37 C.F.R. § 1.97(h), the submission of this IDS is not to be construed as an admission that the information cited in this IDS is material to patentability.

This IDS is being submitted under one or more of the following sections of 37 C.F.R. § 1.97 (as indicated by an "X" to the left of the appropriate paragraph(s)): X 37 C.F.R. § 1.97(b). Filed: (1) Within three months of a National Application other than a CPA; (2) Within three months of entry into National Stage: (3) Before mailing of a first Office Action on the merits; or (4) Before mailing of a first Office Action after filing an RCE. 37 C.F.R. § 1.97(c). Filed before the mailing of a Final Office Action, Notice of Allowance, or an action that otherwise closes prosecution. And, ONE of the following: (1) One statement from 37 C.F.R. § 1.97(e); (e)(1) The person signing below certifies that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or (e)(2) The person signing below certifies that no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing below after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 1.56(c) more than three months prior to filing this IDS. (2) The fee set forth in 37 C.F.R. § 1.17(p). A check in the amount of \$180.00 is enclosed. 37 C.F.R. § 1.97(d). Filed on or before payment of the issue fee. And, BOTH of the following: (1) one statement from 37 C.F.R. § 1.97(e); (e)(1) The person signing below certifies that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or (e)(2) The person signing below certifies that no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing below after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 1.56(c) more than three months prior to filing this IDS. (2) The fee set forth in 37 C.F.R. § 1.17(p). A check in the amount of \$180.00 is enclosed.

Accompanying this IDS is a list of references and a copy of each reference listed therein, EXCEPT copies of references waived under:

(A) one or more of the following sections of 37 C.F.R. § 1.98 (as indicated by a	n "X'
to the left of the appropriate paragraph(s)):	
37 C.F.R. § 1.98(c) as being cumulative (marked with an "*" on the F PTO-1449).	orm
37 C.F.R. § 1.98(d) as being previously submitted in parent application/, to which the present application claims priority under 35 U.S.C. § 120.	on

(B) 1273 Off. Gaz. Pat. Office 55 as being submitted with respect to an application filed after June 30, 2003.

The Commissioner is hereby authorized to charge shortages or credit overpayments to Deposit Account No. 500393. A Fee Transmittal is enclosed in duplicate for fee processing purposes.

Respectfully submitted, Schwabe, Williamson & Wyatt, P.C.

Dated: [1][[04]

Robert Watt Registration No. 45,890

Pacwest Center, Suites 1600-1900 1211 SW Fifth Avenue Portland, Oregon 97204

Telephone: 503-222-9981

Application No.: 10/750,560

PTO/SB/08A (08-03)

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Substitute for form 1449/PTO

Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known Application Number 10/750,560 Filing Date 12/31/2003 First Named Inventor David W. Boggs Art Unit 1772 **Examiner Name** Not Yet Assigned Attorney Docket Number 111079-135918

· · · · · · · · · · · · · · · · · · ·			U. S. PATEN	DOCUMENTS	· · · · · · · · · · · · · · · · · · ·
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (# known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	^{US-} 5,527,740	06/18/1996	Golwalkar et al	
	2	^{US-} 5,545,922	08/13/1996	Golwalkar et al.	
	3	^{US-} 6,580,174 B2	06/17/2003	McCormick et al.	-
	4	^{US-} 6,642,158 B1	11/04/2003	Brist et al.	
	5	^{US-} 6,667,090 B2	12/23/2003	Boggs et al.	
	6	^{US-} 6,747,216 B2	06/08/2004	Brist et al.	
	7	^{US-} 6,787,443 B1	09/07/2004	Boggs et al.	
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	FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages			
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T ⁶		

Examiner	Date	
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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